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ABSTRACT

This study reviews historical thinking about visual literacy, addresses the issue of setting visual literacy's parameters, and provides a philosophy to link individual theories in this multidisciplinary movement. The report examines the roots of the visual literacy movement and the seminal literature in the field. It includes a categorizing of topics and fields of study in the visual literacy movement, and generates a broad position statement that locates visual literacy in relationship to its parent disciplines. A definition of visual literacy is proposed and a set of principles to foster further development of the theoretical foundations in this emerging area is postulated. An extensive bibliography is provided. (Author/MER)

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IDENTIFYING THE THEORETICAL FOUNDATIONS OF VISUAL LITERACY

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Introduction

The underlying purpose of this presentation is to review the historical roots of visual literacy and to provide a suggested direction for theoretical activity in the promotion of visual literacy. To achieve that purpose it will be necessary to confront systematically the questions, problems, and uncertainties which have heretofore impeded attempts to identify the theoretical foundations of the field. Because the issues are complex, the subject is considered analytically, following an approach that has five components. The approach is linear in that it progresses from a review of the past through current concerns to suggestions for the future.

The first step is a review of historical thinking about visual literacy. This is more than a search for the "Roots" of the movement. It is a quest for the seminal literature. To that end, this presentation is appended with an extensive bibliography, including items not specifically cited in the text.

The second step addresses the touchy issue of setting visual literacy's parameters. The approach of the authors is to categorize topics and fields of study as <u>included</u> in visual literacy, <u>interactive</u> with visual literacy, and <u>related</u> to visual literacy.

The third step in the quest provides a philosophy which links individuals in an otherwise multidisciplinary "movement." The intent is to generate a broad position statement that locates visual literacy in relationship to its parent disciplines.

Next, as step four, a redefinition of visual literacy is proposed. The persistent and descriptive problems that have plagued the visual literacy movement have, as often as not, been related to the matter of definition. Thus, one more attempt to deal with definition seems worth the effort--particularly so if set in the context of a field with stated parameters and an articulated philosophical position.

As a final step, the authors postulate a set of proposals that are designed to foster the further development and understanding of the theoretical foundations of an emerging field.

Historical Thinking

John L. Debes (Fransecky & Debes, 1972) coined the term visual literacy and founded its national conference. The International Visual Literacy Association (IVLA) grew out of that first conference and today has its headquarters at the National Center for Visual Literacy, Gallaudet College, Washington, D.C. With the help of Eastman Kodak Company in Rochester, New York, Debes organized the First Annual National Conference on Visual Literacy in March, 1969. From this conference came the first major publication in the field (Williams & Debes, 1970) and a definition of visual literacy that was later adopted by the Association for Educational Communications and Technology. [Note: In spite of AECT adoption the definition has never been widely accepted. See comments to follow.]

The search for the theoretical foundations of visual literacy is a process that is well underway. In the dozen years which followed the founding of IVLA a number of theories and theory-based offerings were given to the field. These have covered a wide range of topics. The

list that follows does not attempt to identify the ways in which either these topics or these theoretical papers overlap, and it should be emphatically stated that the examples cited are merely representative works. Some of the theories have dealt with: visual languaging (e.g. Ausburn & Ausburn, 1978; Debes, 1972, 1974; Turbayne, 1970), visual thinking (e.g. Arnheim, 1969; Haber, 1970; Wileman, 1980), visual learning (e.g. Dwyer, 1978; Jonassen & Fork, 1978; Randhawa, Back, & Meyers, 1977), hemispheric lateralization of the brain (e.g. Bogen, 1979; Ragan, 1977; Sperry, 1973), mental imagery (e.g. Fleming, 1977; Kosslyn & Pomerantz, 1977; Pylyshyn, 1973), levels of abstraction (Clark & Clark, 1976; Clark, 1978), cultural interaction (Cochran, Younghouse, Sorflaten & Molek, 1980), and the interactive theories dealing with symbol systems and dual coding (e.g. Levie, 1978b; Levie & Levie, 1975; Paivio, 1971, 1975; Salomon, 1972, 1979).

And there is much, much more. There has been a veritable outpouring of germinal papers: Debes (1969) suggested a hierarchy of visual skills. Williams (1970) advanced nine visual literacy propositions. Dwyer (1972) and his students have methodically examined the realism continuum. Dondis (1973) brought out a basic textbook. Lamberski (1976a) and Fork & Newhouse (1978) compiled collections of papers about visual literacy. Fleming & Levie (1978) drew upon the research of the field and compiled an extensive set of principles for the design of instructional visuals. Hocking (1978) offered a comprehensive analysis of factors related to visual literacy goals. Duchastel (1978) introduced and with Waller

(Duchastel & Waller, 1979) elaborated upon a system for the functional categorization of illustrations. Levie (1978), Cochran et al. (1980), and Winn (1980) have all provided guidance for future research in the field. Wileman (1980) categorized types of verbal/visual image relationships in a landmark text on visual thinking. Winn & Holliday (1981) derived a set of design principles for diagrams.

But wait! Is this merely a shotgun blast of vaguely related theories that is conspicuously missing a comprehensive theory of visual literacy? We must acknowledge that some writers do not believe that there is such a thing as a theory of visual literacy. Johnson (1977), for instance, identified no single theory of visual literacy but found a "confluence of theories" (p. 140). He prefers the term media literacy to visual literacy. Johnson (1977) wrote:

> I was disappointed to discover that visual literacy is really nothing more than a "confluence of theories," brought together to form a vague, unorganized concept that tries to explain the notion of "visual sequencing." It is not surprising that the visual literacy "movement" has not "moved" very far. The movement has generated some "research," (most of which is rather confusing), and the term "visual literacy" has gained some "currency" in educational circles. However, very few of the conclusions reached by visual research can be used for teaching English. (pp. 140-41)

One way to answer the challenge of statements like Johnson's is to come to grips with what is and what is not visual literacy. To dig up an old phrase, the time has come to "set the parameters of visual literacy."

The Issue of Parameters

Setting the parameters of visual literacy is not an easy task. The problem was contaminated at the outset by Debes (1970) when he compared

visual literacy to an amoeba. In Debes' model, the pseudopods of the amoeba included philosophy, technology, art, graphic arts, psychology, linguistics, rhetoric, programmed learning, and semantics. Debes suggested some parameters, but in actuality the relationships were tentative. Sadly, not much has changed since Debes' pathfinding article.

Some scheme is still needed to identify more precisely the parameters of the field of visual literacy. And, it might be hoped that such a scheme might generate a broad position statement that positions visual literacy in relationship to its parent disciplines. If that purpose is to be achieved we must change our metaphor. We must abandon the amoeba concept which has visual literacy reaching out in all directions--intruding, if you will, into other disciplines. Rather, we must look at the field and clarify each of the relationships. For example, we must ask ourselves, does visual literacy "reach into" art, or does art "reach into" visual literacy, or are the disciplines of art and visual literacy distinct and separable disciplines peopled by individuals with many common interests.

It is not the purpose of this paper to identify every relationship between visual literacy and other disciplines. However, an important purpose is to emphasize the need to have the nature of these relationships clarified. In that spirit, the authors would like to start by identifying a scheme based upon three basic relationships. These can all be shown graphically in variations of the Venn diagram.

The first relationship is that of included (fig. 1), which is the relationship of visual literacy as a whole to those areas of concern and inquiry which are totally subsumed by visual literacy. Visual language is the example shown in the figure. Everything about visual language is of concern to the field of visual literacy. As shown in fig. 1, the concerns of visual literacy exceed those of visual language, which represents an opinion of the authors. If there are visual language advocates who disagree with that depiction, then there should be open dialogue until consensus is reached.

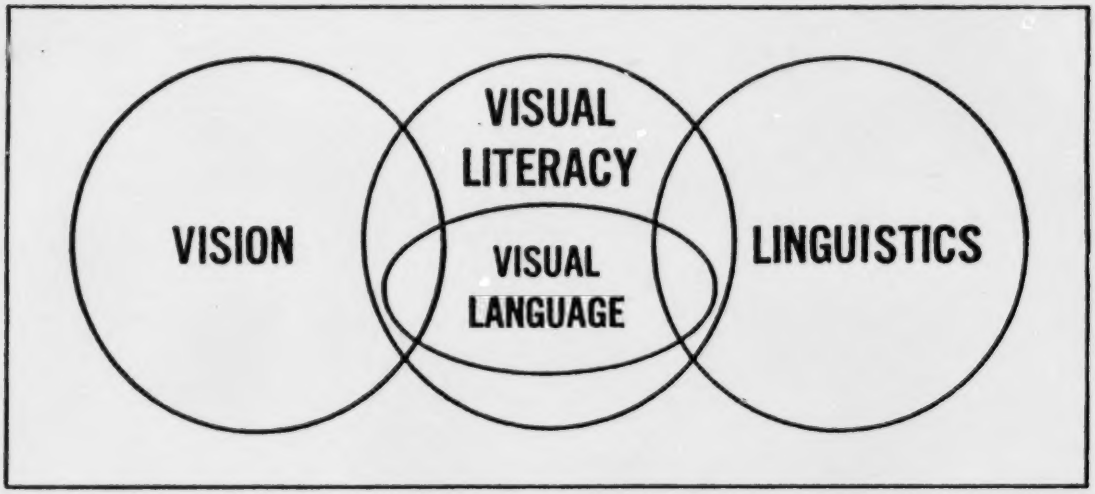

Fig. 1. "Included" and "Interactive" Examples

Also in fig. 1, a second relationship is shown between visual literacy and linguistics. This overlapping or interacting relationship implies that visual literacy is not concerned with all aspects of linguistics, and conversely, the field of linguistics is not concerned with every aspect of visual literacy. However, a hoped for implication

is that there are many concepts, theories, and processes which are common to both visual literacy and linguistics.

There is a large group of other topics and fields of study which we classify in a third category termed related (to visual literacy). This concept, too, may be supported by a graphic representation (fig.2). In

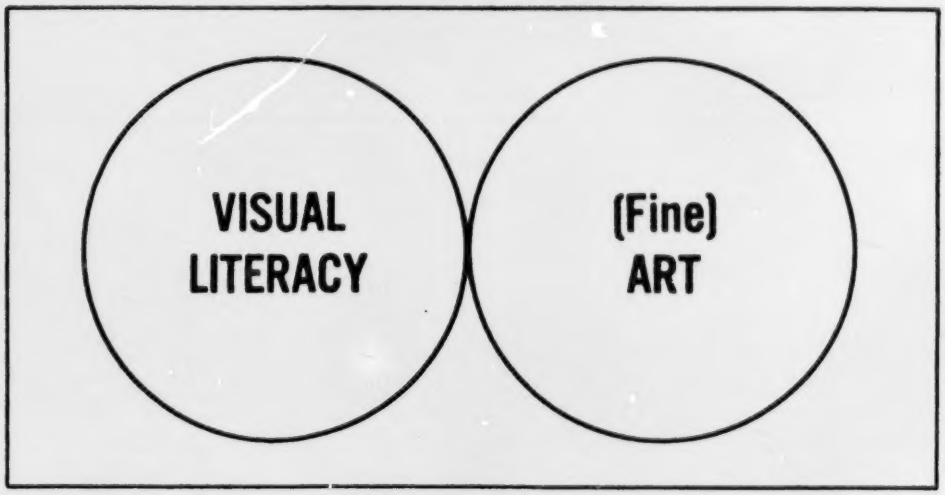

Fig. 2. "Related" Example

this case the illustration suggests that the differences between the two fields of study are fairly clear. The example chosen is the relationship between fine art and visual literacy. Although art critics may disagree as to whether a particular object is or is not "art", the ways in which works of art are interpreted is more a matter of aesthetics than of visual literacy. On the other hand, graphic arts are a mainstream concern of visual literacy (fig. 3). Graphic art interacts with fine art in many

ways, including a shared concern for aesthetic values, but as illustrated these are not the things that link graphic art to visual literacy. Rather, the linkage is bonded in the shared interest of the two fields in message transmission as an aspect of communication.

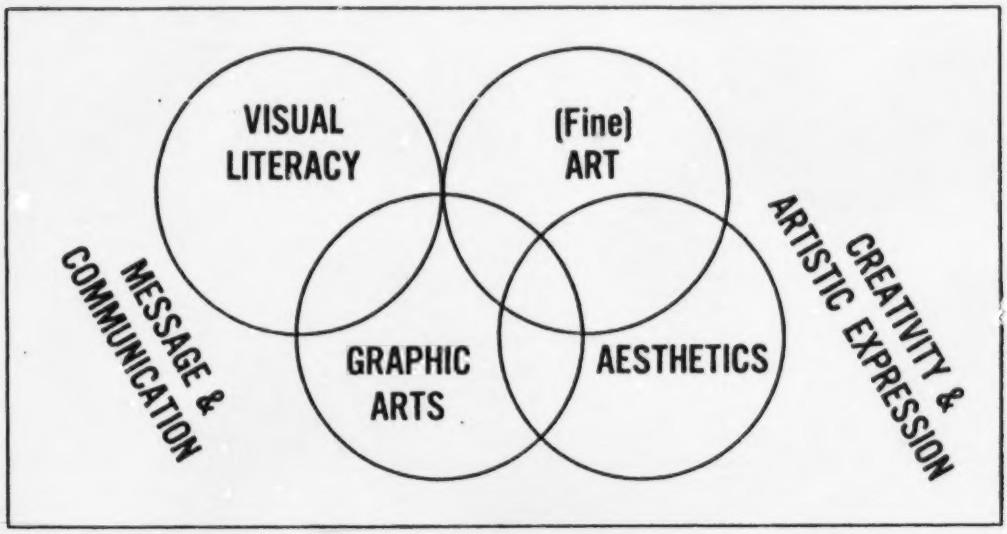

Fig. 3. "Related" and "Interactive" Examples

It is unlikely that any of these relationships could ever be cast in stone. It may not even be possible to gain a consensus agreement upon the nature of a relationship. For example, these writers believe that the relationship between visual literacy and cognitive psychology is a very close interacting relationship (fig. 4). A psychologist might view the relationship as more remote, what we term "related", or might even consider the relationship to be extremely remote with only the vaguest of interconnecting threads between the two fields. It is even possible that visual literacy might be considered as a subset of psychology and

thus be viewed as "included"--a relationship not shown in any of the figures.

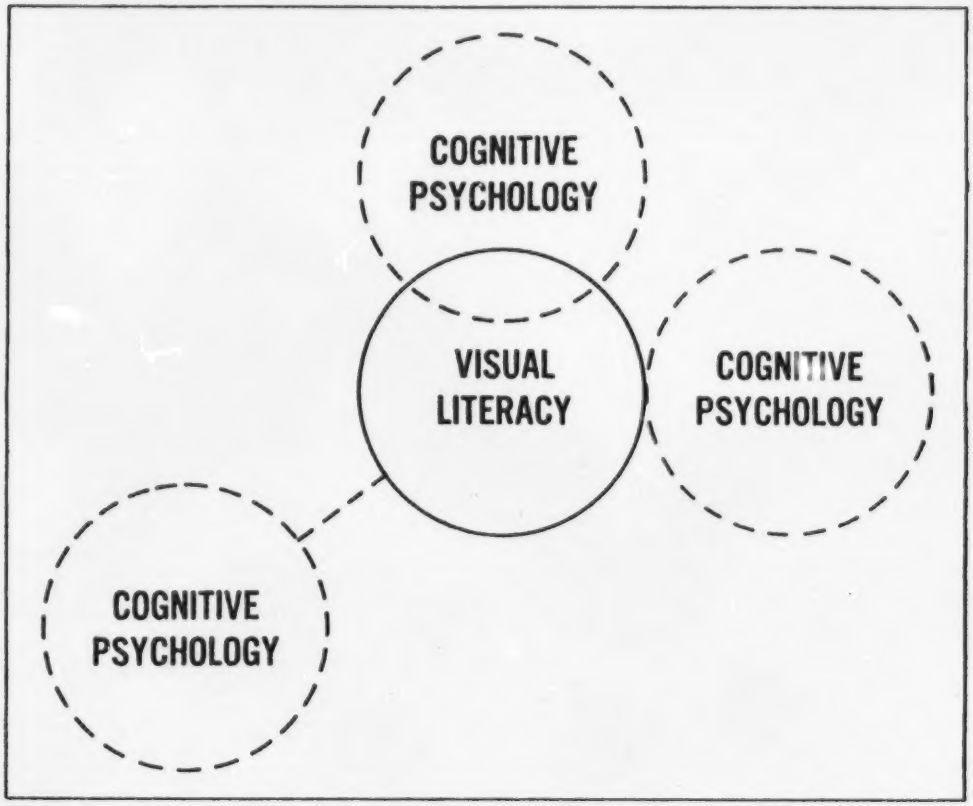

Fig. 4. Unresolved Relationship

The important issue here is that visual literists must reduce rather than expand their identified core area of interest. That does NOT mean that they must forego their related interests. Rather, it means that the time has come to decide which is which. Audiovisual education interacts with but is not subsumed by visual literacy. The split brain

research of Nobel winner Sperry is extremely interesting but is barely related to visual literacy. Visual design is related to visual literacy, but design of instructional visuals is included. Such are a few of the relationships, and such are the ways that they should be commonly considered.

Position Statement

With this attitude in mind, you could now look back at the list of theoretical topics presented above and we could open a dialogue as to where the parameters of visual literacy begin and end. In an attempt to generate a level of discussion that might evoke a response that would relate visual literacy to its parent disciplines, the bibliography which accompanies this paper has been keyed to the authors' notions as to which writings are included-in, interactive-with, or related-to the study of visual literacy. The effort is offered as a straw man, and counter positions are encouraged.

Although it is our hope to eventually stimulate a widely agreed upon philosophy which links individuals in an otherwise interdisciplinary "movement", that goal may still be out of reach. For one thing, it is unrealistic to expect philosophical agreement when we have not, as yet, agreed upon a definition of the term visual literacy.

A Definition

A simple definition will serve best. Then, if we can promote the idea that any number of things can and should be closely related to the practice, research, and theory of visual literacy, the "movement" can

proceed in a healthy interdisciplinary way. With those somewhat lofty thoughts in mind, we therefore offer this definition:

> Visual literacy is the ability to understand and use images, including the ability to think, learn, and express oneself in terms of images.

The definition is intended to incorporate the essentials of visual learning, visual thinking, and visual language. It is also intentionally directed at the individual, who in the final analysis must develop the "ability".

A Set of Proposals

While we do not expect that the above definition will be wholly satisfactory to everybody, we sincerely hope that it is not totally unsatisfactory to anybody. In its simplicity we hope the proposed definition has utility for all visual literists. Thus we choose to make the definition the subject of the first of several proposals. The purpose of the proposals is to foster the further development and understanding of the theoretical foundations of the emerging field of visual literacy.

Proposal 1. IVLA, as the pre-eminent organization speaking for the field of visual literacy, should adopt an official definition of the term "visual literacy." The definition proposed above, if acceptable to the membership of IVLA, is freely offered for that purpose. In the event that the proposed definition is not acceptable, an acceptable but equally simple substitute should be adopted.

Proposal 2. IVLA should officially sanction the notion that there is a *body* of fact and theory in regard to visual literacy. This would establish an environment in which competing and complementary theoretical positions could co-exist. A logical consequence might be for IVLA to sponsor a project designed to unearth, clarify, and consolidate the theory of the field. Another consequence might be the evolution and strengthening of the natural philosophical linkages which are necessary to bind a diverse discipline.

Proposal 3. Visual literacy advocates, perhaps through IVLA, should encourage the development of special interest visual literacy groups from the professional areas of art, English, reading, psychology, neuropsychology, philosophy, linguistics, communications, film and TV, graphics, educational technology, and perhaps others. The special interest groups could be formed in either IVLA or in the associations of the related disciplines. The affiliate relationship of IVLA to AECT is an example of a start in this direction.

Proposal 4. Some individual or group of individuals must bring the burgeoning literature of the field under control. At this stage, the fate of an identified expanded literature is dependent upon bibliogrpahic refinement through some step-by-step process of successive iterations. This will continue, pending the emergence of an individual scholar or team of scholars who will undertake a major project to locate, classify, annotate, and evaluate everything that can be found that deals with or relates to

visual literacy. Thus, however useful the efforts may be of individuals like Levie (1978a, 1979), Cochran (1980), Bogen (1979), and the present authors, these efforts are only stopgaps, awaiting a comprehensive, exhaustive bibliographic work. In all probability the work will not be forthcoming unless sponsored by IVLA, ERIC, or by a foundation grant.

Proposal 5. The concept and practice of visual literacy should be enhanced by research and testing. This is not a new idea (Cureton & Cochran, 1976, Cochran et al., 1980), but it bears restatement whenever the future of visual literacy is up for discussion. As in any practical field, visual literacy has many practitioners who have little interest in performing research. Still, these same practitioners rely upon the results of published scholarship to identify for them the elements of good procedure, to provide guidelines for professional improvement, to suggest innovative possibilities, and to verify (or reject) the validity of routines which have been initiated intuitively. Research also can assist in setting visual literacy's parameters through comprehensive surveys such as the one by Hocking (1978) that set out to determine visual literacy goals.

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